



Province of Manitoba

DEPARTMENT OF MINES AND NATURAL RESOURCES

MINES BRANCH

PUBLICATION 57 - 3

BIBLIOGRAPHY

of

**GEOLOGY OF THE PRECAMBRIAN AREA
OF MANITOBA**

1950 - 1957

Compiled by

G. S. BARRY

WINNIPEG

1959



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DEPARTMENT OF MINES AND NATURAL RESOURCES

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PREFACE

This bibliography is intended to serve as a supplement to publication 51-1 which contained references on Manitoba's Precambrian up to 1950. The present list covers the period 1950 to 1957.

The bibliography is divided into four parts. Part I contains references indexed according to the names of authors, listed in alphabetical order. The full titles and references are given in this section. In Part II references are indexed according to subject and only the author's name and date of publication are given for each subject reference. The full reference may be obtained by referring back to Part I. Part III lists references according to geographical location, followed by general topics; as in Part II only the author's name and date is recorded in Part III.

Lists of geophysical and geological maps, published from 1951 to 1957 by the Manitoba Mines Branch and the Geological Survey of Canada, are contained in Part IV.

A number of publications and reports written prior to 1950 but omitted from the earlier bibliography, 51-1, have been included in the present bibliography. These have been placed in the appropriate places in Parts I, II, and III, and are listed separately in the Appendix.

Grateful acknowledgement is made to the libraries and geological departments of Canadian universities for their assistance in providing titles of theses dealing with Manitoba. Of particular help was the information provided by the Geological Survey of Canada.

It would be appreciated if any errors or omissions are brought to the attention of the Mines Branch.

LIST OF ABBREVIATIONS

The following list gives both abbreviated citation and full name of periodicals and serials that have been cited in this publication:

A.I.M.E. Trans. - American Institute of Mining and Metallurgical Engineers Transactions. New York.

Am. Jour. Sci. - American Journal of Science. New Haven, Pa.

Am. Mineralogist - American Mineralogist. Ann Arbor, Mich.

C.I.M.M. Trans. - Canadian Institute of Mining and Metallurgy Transactions. Montreal.

C.M.M. Bull. - Canadian Mining and Metallurgical Bulletin. Montreal.

Can. Min. Jour. - Canadian Mining Journal. Gardenvale, Quebec.

Econ. Geol. - Economic Geology. Urbana, Ill.

Eng. and Min. Jour. - Engineering and Mining Journal. New York.

Geol. Assoc. Can. Proc. - Geological Association of Canada Proceedings. Ontario.

Geol. Soc. America Bull.; Interim Proc.; Mem.; Proc. - Geological Society of America Bulletin; Interim Proceedings; Memoirs; Proceedings. New York.

Geol. Surv. Canada, Bull.; Geophysics Paper; Map; Mem.; Paper - Geological Survey of Canada; Geophysics Paper; Map; Memoir; Paper. Ottawa.

Jour. Geol. - Journal of Geology. Chicago.

Manitoba Mines Branch Publ. - Manitoba Mines Branch Publication. Winnipeg, Manitoba.

Mines Mag. - Mines Magazine. Golden, Colo.

Min. Eng. - Mining Engineering. New York.

Natl. Mus. Can. Bull. - National Museum of Canada Bulletin. Ottawa.

Precambrian - The Precambrian, Winnipeg, Manitoba.

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PART II
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ECONOMIC GEOLOGY

Miscellaneous

Regional: Anderson, 1956; Harrison, 1951a, 1951b; Quinn, 1956;
Robertson, 1951.

Financing:

Lynn Lake: Precambrian, 1955d; Brown, 1955.

Granite:

Lake St. Martin: Hunter, 1951.

West Hawk Lake: Springer, 1952; Cole, 1953a.

Lithium Beneficiation: Beer, 1951.

Mining:

Lynn Lake: Muter, et al, 1955; Precambrian, 1955d.

Prospecting: Brownell, 1954; Lang, 1956; Charlewood, 1957a.

Refining:

Lynn Lake Ores: Muter, et al, 1955; Precambrian, 1955d.

Asbestos

Garner Lake: Russell, 1952b.

Beryllium

Bernic Lake: Davies, 1955b, 1957a.

Cat Lake: Davies, 1956b.

Glenn: Springer, 1952.

Greer Lake: Davies, 1957a.

Herb Lake: Russell, 1957.

Missipisew River: Quinn, 1956.

Shatford Lake: Davies, 1957.

Winnipeg River: Davies, 1957.

Chromium

Chromite, general: Russell, 1952a.

Bird River: Davies, 1952.

Bird Lake: Davies, 1955b.

Cobalt

Lynn Lake: Dornian, 1950; Charlewood, 1952; Brown, et al, 1955.

Southern Indian Lake: Quinn, 1956.

Copper

Anson Lake: Davies, 1952.

Bird Lake: Davies, 1955b.

Bird River: Taylor, 1950; Davies, 1955a.

Buffalo Lake: Precambrian, 1955b.
Crowduck Bay: Precambrian, 1955b.
Cuprus Mines: de Wet, 1951a.
Elken Lake: Robertson, 1953.
Gordon Lake: Johnson, 1953.
Herb Lake: Russell, 1957.
Kickley Lake: Russell, 1952b.
Lynn Lake: Rowe, 1948; Dornian, 1950; de Wet, 1951a; Waldron, 1951;
Charlewood, 1954a; 1954b; Brown, et al, 1955.
McLaren Creek: Quinn, 1956.
Miller Lake: Bell, 1957.
Moak Lake: Precambrian, 1955b.
Morton Lake: Precambrian, 1955b.
Mystery Lake: Cole, 1953b; Precambrian, 1955b; Quinn, 1956.
Osborne Lake: Precambrian, 1955b; Quinn, 1956; Bell, 1957; Russell, 1957.
Ospwagan (Pipe) Lake: Dawson, 1952.
Partridge Crop Lake: Dawson, 1952.
Schist Lake: de Wet, 1951a.
Southern Indian Lake: Quinn, 1956.
Utik Lake: Milligan, 1952b, Quinn, 1955b.
Wilmot Lake: Oliver, 1952a.

Gold

Alberts Lake: Kallikoski, 1952b.
Assean Lake: Gill, 1951b.
Beresford Lake: Davies, 1953.
Central Manitoba Mines: Russell, 1952c.
Century Mines: McGlynn, 1954.
Diana Mine: Russell, 1952b.
Eastern Bear Lake: Milligan, 1954.
Elbow Lake: McGlynn, 1954.
Eldorado Mines: Russell, 1952c.
Evans Lake: Robertson, 1953.
Falcon Lake: Davies, 1954.
Falnora Gold Mines: Davies, 1954.
Fay Lake: McGlynn, 1954.
Gencona Mines: Davies, 1953.
Gold Island Mining Company: Davies, 1953.
Gold Lake Mines: Davies, 1953.
Gold Pan Mines: Davies, 1953.
Great Island: Precambrian, 1955b.
Gunnar Mine: Russell, 1952c.
Herblet Lake: Quinn, 1956.
Homestake Explorations: Davies, 1954.
Island Lake: Meinert, 1957.
Karsakuwigamask Lake: Quinn, 1956.
Knee Lake: Quinn, 1955a; 1955b.
Lasthope Lake: Fawley, 1952.

Laurie Lake: Milligan, 1952a.
Lynn Lake: Charlewood, 1954a; Brown et al, 1955.
Manigotagan River: Davies, 1951.
Oro Grande: Russell, 1952c.
Ogama - Rockland Mine: Troop, 1950; de Wet, 1951a; Russell, 1952c.
Packsack Mines: Davies, 1953.
Portage Avenue Gold Mines: Davies, 1953.
Rice Lake (Southern): Davies, 1953.
San Antonio Mines: de Wet, 1951a.
Snow Lake: de Wet, 1951a; Precambrian, 1955b; Quinn, 1956; Russell, 1957.
South Indian Lake: Quinn, 1956.
Split Lake: Gill, 1951b.
Star Lake Gold Mines: Davies, 1954.
Utki Lake: Milligan, 1952b.
Wanipigow Lake: Davies, 1953.
West Hawk Lake: Springer, 1952.
Wolf Rapids: Quinn, 1956.

Silver

Fox River: Quinn, 1955b.
Mystery Lake: Dawson, 1952; Quinn, 1956.
Osborne Lake: Quinn, 1956.
West Hawk Lake: Springer, 1952.

Iron

Bigstone River: Quinn, 1955b.
Manigotagan River: Davies, 1951.
Utki River: Quinn, 1955b.

Lead

Evans Lake: Robertson, 1953.
Mystery Lake: Gill, 1951a.
Osborne Lake: Quinn, 1956.
Setting Lake: Quinn, 1956.

Lithium

General: Precambrian, 1953; Rowe, 1954, 1955; Davies, 1956b; Mulligan, 1957a, 1957b.
Bernic Lake: Davies, 1955b, 1956b; Gass, 1957.
Cat Lake: Precambrian, 1955b; Bell, 1957; Davies, 1956b; Mulligan, 1957a, 1957b; Rowe, 1954, 1955.
Crowduck Bay: Rowe, 1955; Precambrian, 1955b; Mulligan, 1957b.
East Braintree: Rowe, 1954, 1955; Mulligan, 1957a, 1957b.
Glenn: Springer, 1952.
Grass River: Quinn, 1956.
Greer Lake: Davies, 1957a.
Herb Lake: Rowe, 1954, 1955; Mulligan, 1957a, 1957b; Russell, 1957.
Missipisew River: Quinn, 1956.
Montgary Mines: Bell, 1957; Davies, 1957a.
Violamac Mines: Precambrian, 1955c.

West Hawk Lake: Rowe, 1954, 1955; Mulligan, 1957a, 1957b.
Winnipeg River: Rowe, 1954, 1955; Davies, 1956b; Gass, 1957; Mulligan, 1957a, 1957b.

Molybdenum

Falcon Lake: Springer, 1952.
Footprint Lake: Wright, 1953.
Partridge Crop Lake: Dawson, 1952.
Wintering Lake: Dawson, 1952.
Wolf Rapids: Quinn, 1956.

Nickel

Alberts Lake: de Wet, 1951a.
Assean Lake: Gill, 1951b.
Bird Lake: Davies, 1955b.
Bird River: Taylor, 1950; Davies, 1955a.
Crowduck Bay: Precambrian, 1955b.
Cuthbert Lake: Dawson, 1952; Quinn, 1956.
Gordon Lake: Johnson, 1953.
Grass River: Quinn, 1956.
Herb Lake: de Wet, 1951a; Russell, 1957.
Island Lake: Meinert, 1957.
Lynn Lake: Rowe, 1948; Dornian, 1950; de Wet, 1951a; Waldron, 1951; Charlewood, 1954a, 1954b; Brown, et al, 1955.
McLaren Creek: Quinn, 1956.
Melvin Lake: Quinn, 1956.
Moak Lake: Precambrian, 1955b; Cole, 1956; Quinn, 1956.
Mystery Lake: de Wet, 1951a; Gill, 1951a; Harrison, 1951c; Cole, 1953b; Precambrian, 1955b; Quinn, 1956.
Ospwagan (Pipe) Lake: Dawson, 1952.
Partridge Crop Lake: Dawson, 1952.
Southern Indian Lake: Quinn, 1956.
Thompson Lake: de Wet, 1951a.
Thompson Orebody: Quinn, 1956.
West Hawk Lake: Springer, 1952.
Wintering Lake: Dawson, 1952.

Sulphides

Aileen Lake: Davies, 1957a.
Barrington Lake: Quinn, 1956.
Batty Lake: Robertson, 1957a.
Bernic Lake: Davies, 1957.
Big Sand Lake: Quinn, 1956.
Bird River: Davies, 1952.
Brostrom Lake: Quinn, 1956.
Counsell Lake: Oliver, 1952a.
Eastern Bear Lake: Milligan, 1954.
Falcon Lake: Davies, 1954.
Fay Lake: McGlynn, 1954.
Fish Lake: Quinn, 1956.

Five Mile Lake: Quinn, 1956.
Fold Lake: Quinn, 1956.
Footprint Lake: Quinn, 1956.
Fox River: Quinn, 1955a, 1955b.
Harding Lake: Quinn, 1956.
Herb Lake: Russell, 1957.
High Hill Lake: Quinn, 1955b.
James Lake: Quinn, 1956.
Joey Lake: Quinn, 1956.
Karsakuwigamak Lake: Wright, 1953.
Kay Lake: McGlynn, 1954.
Kleckley Lake: Russell, 1952b.
Knee Lake: Quinn, 1955b.
Landing Lake: Quinn, 1956.
Leftrock Lake: Quinn, 1956.
Lily Lake: Russell, 1952b.
Long Lake: Quinn, 1956.
Loon Narrows: Quinn, 1956.
Lynn Lake: Dornian, 1950.
MacBen Lake: Quinn, 1956.
MacBride Lake: Quinn, 1956.
Melvin Lake: Hunter, 1952.
Naosap Lake: Kalliokoski, 1952b.
Nelson House: Quinn, 1954, 1956.
Nelson Lake: Quinn, 1956.
Nickel Lake: Quinn, 1956.
Nokomis River: Robertson, 1953.
Opegano Lake: Quinn, 1956.
Ospwagan Lake: Quinn, 1954.
Rat River: Quinn, 1956.
Rusty Lake: Quinn, 1956.
Saw Lake: Quinn, 1956.
Saw Bill Lake: Quinn, 1956.
Setting Lake: Quinn, 1954, 1956.
Shatford Lake: Davies, 1957a.
Snow Lake: Russell, 1957.
South Indian Lake: Quinn, 1956.
Star Lake: Davies, 1954.
Semple Lake: Quinn, 1955b.
Threepoint Lake: Quinn, 1956.
Tow Lake: Wuinn, 1956.
Upper Ospwagan Lake: Quinn, 1956.
Utk Lake: Milligan, 1952b; Quinn, 1955a, 1955b.
Vamp Lake: McGlynn, 1954.
Walton Lake: Robertson, 1953.
Webb Lake: McGlynn, 1954.
Weldon Narrows: Kalliokoski, 1952b.
West Hawk Lake: Davies, 1954.
Wilmot Lake: Oliver, 1952a.
Winnipeg River: Davies, 1957a.

Wintering Lake: Quinn, 1956.
Wuskwatin Lake: Quinn, 1956.

Tin

Bernic Lake: Davies, 1955b.
Rush Lake: Davies, 1955b.
Shatford Lake: Davies, 1957a.
West Hawk Lake: Springer, 1952.

Tungsten

Barren Lake: Davies, 1954.
Falcon Lake: Springer, 1952; Davies, 1954.
Herblet Lake: Quinn, 1956.
Snow Lake: Russell, 1957.

Uraninite and Radioactive Minerals

Radioactive Minerals:

Falcon Lake: House, 1955.
Herblet Lake: Russell, 1957.
Laurie Lake: Milligan, 1952a.
Uraninite: Huron Pegmatite: Davies, 1957a.
Uranium: Manigotagan Lake: Precambrian, 1955b.
Star Lake: Lang, 1952.
West Hawk Lake: Springer, 1952.
Winnipeg River: Lang, 1952.

Zinc

Chisel Lake: Bell, 1957.
Cuprus Mines: de Wet, 1951a.
Elken Lake: Robertson, 1953.
Lynn Lake: Dornian, 1950; Charlewood, 1954a; Brown, et al, 1955.
Mystery Lake: Gill, 1951a.
Osborne Lake: Precambrian, 1955b; Quinn, 1956; Bell, 1957; Russell, 1957.
Schist Lake: de Wet, 1951a.

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Stratigraphy: Russell, 1957.

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Anthophyllite: Elken Lake; Robertson, 1953.
Beryl and Associated Minerals: Davies, 1957a.
Heavy Accessory Minerals: Stanton, 1941; Dornian, 1950.
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Rose Quartz: Birse Lake; Davies, 1956a.
Sulphides: Lynn Lake; Dornian, 1950.
Staurolite: La Prairie, 1951.
Zircons in Sickle Conglomerate: Caldwell, 1950.
Zoning in Pegmatites: Heinrich, 1953.

PETROLOGY

Bird River Chromite: Osborne, 1949.
California Lake Area: Shepherd, 1954a.
Granite: Kallikoski, 1952b.
Falcon Lake Stock: House, 1955.
Island Lake Series: Meinert, 1957.
McGavock Lake: Oliver, 1952b.
Kisseynew Gneiss: Kallikoski, 1952b.
Lily Pond Area: Michalkow, 1954.
Metamorphism: Batty Lake; Robertson, 1953.
Cree Lake; Antrobus, 1949.
Wasekwan Series; Harrison, 1941.
Weldon Bay; Kallikoski, 1952b.
San Antonio Intrusive: McAuley, 1950.
Sickle Conglomerate: Caldwell, 1950.
West Hawk Lake: Binda, 1953.

STRUCTURAL GEOLOGY

Regional: Anderson, 1956; Harrison, 1951b; Wilson, et al, 1956.
Falcon Lake Stock: House, 1955.
Flin Flon Area: Kallikoski, 1952a; Kirkland, 1956.
Kisseynew Gneisses: Anderson, 1956; Harrison, 1951b; Kallikoski, 1952a,
1952b; Robertson, 1953.
Kisseynew Lineament: Robertson, 1951; Harrison, 1951a.
Lily Pond Area: Michalkow, 1954.
Long Lake-Halfway Lake: Russell, 1952c.
Lynn Lake Mine: Brown, et al, 1955.
Rice Lake Group: Russell, 1952b.
Snow Lake-Herb Lake: Russell, 1957.
Weldon Bay: Kallikoski, 1952b.

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et al, 1956.
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Heavy Mineral Studies: Stanton, 1941.

Hydrothermal Solutions: Falcon Stock; Netherly, 1952.

Origin of Sulphide Deposits: Bird Lake; Davies, 1955b.

PART III
REFERENCES INDEXED BY LOCATION
GENERAL

Regional: Anderson, 1956; Lang, 1956; Leveille, 1950; Robertson, 1951; Quinn, 1956.

Chipewyan to Herb Lake: Quinn, 1956.

ATHAPAPUSKOW MINING DIVISION

General: Harrison, 1951b.

Alberts Lake, Gold: Kalliokoski, 1952b.

Annabelle, General: Robertson, 1951.

Batty Lake, General: Robertson, 1951.

Century Mine: McGlynn, 1954.

Cuprus Mines: de Wet, 1953a.

Cranberry Lake, General: Podolsky, 1951.

Elbow Lake, General: McGlynn, 1954.

Gold: McGlynn, 1954.

Fay Lake, Gold: McGlynn, 1954.

Sulphides: McGlynn, 1954.

Flin Flon, General: Robertson, 1951, 1951b; Kalliokoski, 1952a; Kirkland, 1956. Mine, General: Cole, 1951b.

Earnings: de Wet, 1952.

Geochemical Investigations: Byers, 1956.

Structure: Anderson, 1956.

Heming Lake, General: McGlynn, 1954.

Kay Lake, Sulphides: McGlynn, 1954.

Kisseynew Lineament: Harrison, 1951a.

Mikanagan Lake, General: Robertson, 1951.

Naosap Lake, Sulphides: Kalliokoski, 1952b.

Sherritt Gordon, General: Kalliokoski, 1952a; de Wet, 1952, 1953a; Muter et al, 1955.

Vamp Lake, Sulphides: McGlynn, 1954.

Webb Lake, Sulphides: McGlynn, 1954.

Weetago Bay: Kirkland, 1956.

Weldon Bay, General: Robertson, 1951; Kalliokoski, 1952a.

Weldon Narrows, Sulphides: Kalliokoski, 1952b.

CROSS LAKE MINING DIVISION

General: Harrison, 1951b, 1951c; Wright, 1953; Quinn, 1954; Russell, 1953.

Bigstone Lake, General: Quinn, 1955a.

Bigstone River, Iron Formation: Quinn, 1955b.

Brostrom Lake, Sulphides: Quinn, 1956.

California Lake, General: Moorhouse, 1954; Shepherd, 1954a.

Caribou River (and Wolverine), Regional: Russell, 1953.

Cauchon Lake, General: Harrison, 1951c.

Chipewyan Lake, General: Quinn, 1956.

Cotton Lake Area, General: Allen, 1954.

Cuthbert Lake, Nickel: Quinn, 1956.

Cuthbert Lake, Tantalite: Quinn, 1956.
Fish Lake, Sulphides: Quinn, 1956.
Five Mile Lake, Sulphides: Quinn, 1956.
Fold Lake, Sulphides: Quinn, 1956.
Footprint Lake, Sulphides: Quinn, 1956.
 Molybdenum: Wright, 1953.
Grass River, Nickel: Quinn, 1956.
Great Island, Gold: Precambrian, 1955b.
Harding Lake, Sulphides: Quinn, 1956.
High Hill Lake, Sulphides: Quinn, 1955b.
International Nickel Company: Johnson, 1957.
Joey Lake, Sulphides: Quinn, 1956.
Karsakuwigamak Lake, Gold: Quinn, 1956.
 Sulphides: Wright, 1953.
Landing Lake, General: Harrison, 1951c.
 Sulphides: Quinn, 1956.
Leftrock Lake, Sulphides: Quinn, 1956.
Long Lake, Sulphides: Quinn, 1956.
Loon Narrows, Sulphides: Quinn, 1956.
McLaren Creek, Copper-Nickel: Quinn, 1956.
Moak Lake, Copper-Nickel: Precambrian, 1955b; Quinn, 1956; Cole, 1956.
Mystery-Moak Lakes, General: Mining Magazine, 1957.
Mystery Lake, General: Gill, 1951a, 1954.
 Canadian Nickel Company: Quinn, 1956.
 Nickel-Copper: Gill, 1951a, Cole, 1953a; Precambrian, 1955b;
 Quinn, 1956.
 Lead-Zinc: Gill, 1951a.
 Nickel: Harrison, 1951c.
 Mystery Lake Nickel Mines: Quinn, 1956.
 Silver-bearing galena: Quinn, 1956.
Nelson House, General: Quinn, 1954.
 Sulphides: Quinn, 1954, 1956.
Nelson River, General: Harrison, 1951c.
Opegano Lake, Sulphides: Quinn, 1956.
Ospwagan Lake, General: Quinn, 1954.
 Nickel and copper: Quinn, 1956.
 Gold and silver: Quinn, 1956.
 Sulphides: Quinn, 1954.
Paint Lake, General: Harrison, 1951c.
Partridge Breast Lake, Tourmaline: Quinn, 1956.
Partridge Crop Lake, General: Harrison, 1951c; Dawson, 1952.
 Copper and nickel: Dawson, 1952.
 Gold and silver: Dawson, 1952.
 Molybdenite: Dawson, 1952.
Pikwitonei Lake, General: Harrison, 1951c.
Pipe Lake: (See Ospwagan Lake).
Sawbill Lake, Sulphides: Quinn, 1956.
Setting Lake, General: Quinn, 1954.
 Lead: Quinn, 1956.
 Sulphides: Quinn, 1954, 1956.

Sipiesk Lake, General: Harrison, 1951c.
South Indian Lake, Gold: Quinn, 1956.
 Sulphides: Quinn, 1956.
Southern Indian Lake, Pegmatites: Quinn, 1956.
 Sulphides: Quinn, 1956.
Thicket Portage, General: Harrison, 1951b.
Thompson Orebody: Quinn, 1956.
Threepoint Lake, Sulphides: Quinn, 1956.
Uhlman Lake, General: Wright, 1953.
Upper Ospwagan Lake, General: Quinn, 1956.
Utik Lake, General: Milligan, 1952b; Harrison, 1951c; Quinn, 1955a.
 Sulphides: Milligan, 1952b; Quinn, 1955a.
Utik River, Iron formation: Quinn, 1955b.
 Sulphides: Quinn, 1955b
Waskaiowaka Lake, General: Gill, 1951b, 1954.
 Gold: Gill, 1951b.
 Granitization studies: Gill, 1951b.
 Nickel: Gill, 1951b.
Wintering Lake, General: Harrison, 1951c.
 Sulphides: Quinn, 1956.
Witchai Lake, General: Harrison, 1951c.
Wolverine and Caribou Rivers, Regional: Russell, 1953.
Wuskwatin Lake, Sulphides: Quinn, 1956.

GODS LAKE MINING DIVISION

General: Harrison, 1951b; Quinn, 1955a.
Fox River, General: Quinn, 1955a.
 Copper-Nickel: Precambrian, 1955b.
 Sulphides: Quinn, 1955a, 1955b.
 Silver, lead: Quinn, 1955b.
 Ultrabasics: Quinn, 1955b.
Gods Lake, General: Harrison, 1951b.
Knee Lake, General: Quinn, 1955a, 1955b.
 Gold: Quinn, 1955a.
 Knee Lake Gold Mines: Quinn, 1955b.
 Sulphides: Quinn, 1955b.

GRANVILLE LAKE MINING DIVISION

General: Harrison, 1951b; Wright, 1953.
Barrington Lake, Sulphides: Quinn, 1956.
Beau-Cache Lake, Gold: Milligan, 1951b.
Big Sand Lake, Sulphides: Quinn, 1956.
Boiley Lake, Gold: Milligan, 1951b.
Counsell Lake, General: Oliver, 1952a.
 Sulphides: Oliver, 1952a.
Granville Lake, General: Harrison, 1951b.
James Lake, Sulphides: Quinn, 1956.
Lasthope Lake, General: Fawley, 1952.
 Lasthope Lake Gold Mines: Fawley, 1952.

Laurie Lake, General: Milligan, 1952a.
Caimito Gold Mines: Milligan, 1952a.
Pegmatites: Milligan, 1952a.
Lynn Lake, General: Harrison, 1951b; Cole, 1951c; Charlewood, 1954a, 1954b; Brown, et al, 1955.
Cobalt: Charlewood, 1952; Brown, et al, 1955.
Copper-Nickel: Rowe, 1948; Dornian, 1950; Charlewood, 1954a, 1954b; Brown, et al, 1955.
Gold: Charlewood, 1954a; Brown, et al, 1955.
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Zinc: Charlewood, 1954a; Brown, et al, 1955.
MacBen Lake, Sulphides: Quinn, 1956.
MacBride Lake, General: Kilburn, 1956.
Sulphides: Quinn, 1956.
McGavock Lake, General: Oliver, 1952b.
McKnight Lake, General: Hunter, 1953.
Melvin Lake, General: Hunter, 1952.
Nickel: Quinn, 1956.
Sulphides: Hunter, 1952.
Nickel Lake, Sulphides: Quinn, 1956.
Rat River, Sulphides: Quinn, 1956.
Rusty Lake, Sulphides: Quinn, 1956.
Sickle Conglomerate: Caldwell, 1950.
Southern Indian Lake, Cobalt: Quinn, 1956.
Copper: Quinn, 1956.
Nickel: Quinn, 1956.
Tow Lake, Sulphides: Quinn, 1956.
Wilmot Lake, General: Oliver, 1952a.
Sulphides: Oliver, 1952a.

HERB LAKE MINING DIVISION

General: Harrison, 1951b; Quinn, 1954.
Batty Lake, Sulphides: Robertson, 1953.
Burntwood River, General: Quinn, 1954.
Chisel Lake, Zinc: Bell, 1957.
Crowduck Bay, Copper-Nickel: Precambrian, 1955b.
Lithium: Rowe, 1955; Precambrian, 1955b; Mulligan, 1957b.
Elken Lake, Anthophyllite: Robertson, 1953.
Copper-Zinc: Robertson, 1953.
Evans Lake, Gold: Robertson, 1953.
Lead: Robertson, 1953.
Gordon Lake, Copper-Nickel: Johnson, 1953.
Grass River, Lithium: Quinn, 1956.
Herb Lake, General: Harrison, 1951b; Quinn, 1956; Russell, 1957.
Copper-Nickel: Russell, 1957.
Lithium: Rowe, 1954, 1955; Mulligan, 1957a, 1957b.
Lithium and Beryllium: Russell, 1957.

Structure: Anderson, 1956.
Sulphides: Russell, 1957.
Herblet Lake, General: Russell, 1957.
Gold: Quinn, 1956.
Radioactive minerals: Russell, 1957.
Tungsten: Quinn, 1956.
Miller Lake, Copper: Bell, 1957.
Missipisew River, Beryllium: Quinn, 1956.
Lithium: Quinn, 1956.
Morton Lake, Copper: Precambrian, 1955b.
Nelson Lake, Sulphides: Quinn, 1956.
Nokomis River, Sulphides: Robertson, 1953.
Osborne Lake, Copper: Quinn, 1956.
Copper-Zinc: Precambrian, 1955b; Bell, 1957; Russell, 1957.
Lead: Quinn, 1956.
Silver: Quinn, 1956.
Zinc: Quinn, 1956.
Reed Lake, General: Harrison, 1951b.
Saw Lake, Sulphides: Quinn, 1956.
Snow Lake, General: Russell, 1957.
Gold: de Wet, 1952; Precambrian, 1955b; Quinn, 1956; Russell, 1957.
Sulphides: Russell, 1957.
Tungsten: Russell, 1957.
Walton Lake, Sulphides: Robertson, 1953.
Wekusko Lake: (See Herb Lake).
Wolf Rapids, Gold: Quinn, 1956.
Molybdenum: Quinn, 1956.

ISLAND LAKE MINING DIVISION

General: Harrison, 1951b.
Island Lake, Gold: Meinert, 1957.
Island Lake Mines: Meinert, 1957.
Nickel: Meinert, 1957.

LAC DU BONNET MINING DIVISION

General: Harrison, 1951b.
Aileen Lake, Sulphides: Davies, 1957a.
Barren Lake, Scheelite: Davies, 1954.
Bernic Lake, General: Davies, 1955b.
Beryllium: Davies, 1955b, 1957a.
Lithium: Davies, 1955b, 1956b; Gass, 1957.
Lithium Corp. of Canada: Davies, 1957a.
Montgomery Expl. Ltd.: Davies, 1957a.
Pegmatites: Davies, 1955b.
Sulphides: Davies, 1957a.
Tin: Davies, 1955b.
Bird Lake, General: Davies, 1955b.
Copper-Nickel: Davies, 1955b.
Maskwa Nickel Chrome Mines: Davies, 1955b.
Pegmatites: Davies, 1955b.
Petra Chromite Ltd.: Davies, 1955b.

Bird River, General: Davies, 1952.
 Chromite: Davies, 1952.
 Copper-Nickel: Taylor, 1950; Davies, 1955a.
 Pegmatites: Davies, 1952.
 Sulphides: Davies, 1952.

Booster Lake, General: Davies, 1956a.
 Pegmatites: Davies, 1956a.

Cat Lake, Lithium: Rowe, 1954, 1955; Precambrian, 1955b; Davies, 1956b; Mulligan, 1957a, 1957b.
 Lithium Corporation of Canada: Mulligan, 1957b.
 Violamac Mines: Precambrian, 1955c; Davies, 1956b.

East Braintree, Lithium: Rowe, 1954, 1955; Mulligan, 1957a, 1957b.

Falcon Lake, General: Davies, 1954; House, 1955.
 Gold: Davies, 1954.
 Molybdenum: Springer, 1952.
 Sulphides: Davies, 1954.
 Tungsten: Springer, 1952.
 Radioactive minerals: House, 1955.

Glenn, Lithium and Beryllium: Springer, 1952.

Greer Lake, Beryllium: Davies, 1957a.
 Feldspar quarrying: Davies, 1957a.
 Lithium: Davies, 1957a.

Lily Pond Area, General: Michalkow, 1954.

Lithium Corporation of Canada: Davies, 1956b.

Montgary Mines-Bernic Lake: Mulligan, 1957b.

Oiseau Lake: (See Bird Lake.).

Oiseau River: (See Bird River.).

Rush Lake, Tin: Davies, 1955b.

Ryerson Lake, General: Davies, 1957a.

Shatford Lake, General: Davies, 1957a.
 Beryllium: Davies, 1957a.
 Sulphides: Davies, 1957a.
 Tin: Davies, 1957a.

Star Lake, General: Davies, 1954.
 Sulphides: Davies, 1954.
 Uranium: Lang, 1952.

Tulabi Lake, Garnetiferous rocks: Davies, 1956a.

West Hawk Lake, General: Springer, 1952; Davies, 1954.
 Gold and Silver: Springer, 1952.
 Granite quarries: Springer, 1952.
 Lithium: Rowe, 1954, 1955; Mulligan, 1957a, 1957b.
 Petrology: Binda, 1953.
 Sulphides: Davies, 1954.
 Tin: Springer, 1952.
 Uranium: Springer, 1952.

Winnipeg River, General: Davies, 1957a.
 Beryllium: Davies, 1957a.
 Fuchsite: Davies, 1957a.
 Lithium: Rowe, 1954, 1955; Davies, 1956b; Gass, 1957; Mulligan, 1957a, 1957b.

Pegmatites: Davies, 1957c.
Sulphides: Davies, 1957a.
Uranium: Lang, 1952.
Tantalite-columbite: Davies, 1957a.

OXFORD LAKE MINING DIVISION

General: Harrison, 1951b.
Bear Lake, General: Harrison, 1951c; Milligan, 1952b; Quinn, 1955a.
Pegmatite minerals: Milligan, 1954.
California Lake, General: Moorhouse, 1954.
Eastern Bear Lake, General: Milligan, 1954.
Gold: Milligan, 1954.
Sulphides: Milligan, 1954.
Oxford House, Accessory minerals: Morgan, 1940.
Oxford Lake, General: Harrison, 1951b.
Semple Lake: Sulphides: Quinn, 1955b.
Utik Lake, General: Harrison, 1951c; Milligan, 1952b, 1953.
Copper: Quinn, 1955b.
Sulphides: Milligan, 1952b; Quinn, 1955b.
Western Bear Lake, General: Allen, 1953.
Mineralization: Allen, 1953.

RICE LAKE MINING DIVISION

General: Harrison, 1951b.
Beresford Lake, General: Russell, 1952b.
Gold: Davies, 1953.
Buffalo Lake, Copper: Precambrian, 1955b.
Clangula Lake, Soil forming processes on serpentine: Allen, 1950.
Garner Lake, General: Russell, 1952b.
Asbestos: Russell, 1952b.
Iron Formations: Russell, 1952b.
Halfway Lake, General: Russell, 1952c.
Gold: Russell, 1952c.
Jeep Mine, General: Eakins, 1949.
Kickleay Lake, General: Russell, 1952b.
Diana Mine: Russell, 1952b.
Gold: Russell, 1952b.
Sulphides: Russell, 1952b.
Lake St. Martin, General: Hunter, 1951.
Lily Lake, General: Russell, 1952b.
Sulphides: Russell, 1952b.
Long Lake, General: Russell, 1952c.
Gold: Russell, 1952c.
Manigotagan Lake, General: Davies, 1951.
Uranium: Precambrian, 1955b.
Manigotagan-Rice River, Gold: Davies, 1951.
Hematite: Davies, 1951.
Ogama-Rockland Gold Mine: Troop, 1950; de Wet, 1951a, 1952.
Rice Lake (Southern), General: Davies, 1953.
Gold: Davies, 1953.

Gencona Mines: Davies, 1953.
Gold Island Mining Company: Davies, 1953.
Gold Lake Mines: Davies, 1953.
Gold Pan Mine: Davies, 1953.
Packsack Mines: Davies, 1953.
Portage Avenue Gold Mines: Davies, 1953.
San Antonio Gold Mines: de Wet, 1952.
Wanipigow Lake, Gold: Davies, 1953.

PART IV

MAPS

AEROMAGNETIC MAPS PUBLISHED BY THE MANITOBA MINES BRANCH 1951-1957

Sherridon Area: long. $100^{\circ} 52'$ - $101^{\circ} 56'$; lat. $54^{\circ} 56'$ - $55^{\circ} 18'$;
2 in. to 1 mi.

Southeast Manitoba: long. $95^{\circ} 09'$ - $95^{\circ} 58'$; lat. $49^{\circ} 00'$ - $49^{\circ} 38'$; in six
separate sheets. 2 in. to 1 mi.

GEOPHYSICAL MAPS OF MANITOBA PUBLISHED BY THE GEOLOGICAL SURVEY OF CANADA 1951-1957

Miscellaneous

.... Gravity anomaly map of Manitoba, Dominion Observatories.
1 in. to 20 mi.
1955.0 Isogonic Chart, Manitoba - 1955.0, Dominion Observatories.
1 in. to 20 mi.

Geophysics Papers (Aeromagnetic)

550 G Magnetic anomaly north of Seal River, Manitoba
Lat. $59^{\circ} 00'$ - $59^{\circ} 03'$
Long. $96^{\circ} 00'$ - $96^{\circ} 17'$
628 G Nichol Lake, Manitoba
Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$
Long. $96^{\circ} 00'$ - $96^{\circ} 30'$
629 G Lovat Lake, Manitoba
Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$
Long. $96^{\circ} 30'$ - $97^{\circ} 00'$
630 G Wither Lake, Manitoba.
Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$
Long. $96^{\circ} 30'$ - $97^{\circ} 00'$
631 G Meades Lake, Manitoba
Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$
Long. $96^{\circ} 00'$ - $96^{\circ} 30'$
632 G Quinn Lake, Manitoba
Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$
Long. $97^{\circ} 00'$ - $97^{\circ} 30'$
633 G Steel River, Manitoba
Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$
Long. $97^{\circ} 00'$ - $97^{\circ} 30'$
634 G Knights Hill, Manitoba
Lat. $58^{\circ} 45'$ - $58^{\circ} 47'$
Long. $93^{\circ} 30'$ - $94^{\circ} 00'$
635 G Cape Churchill, Manitoba.
Lat. $58^{\circ} 45'$ - $58^{\circ} 47'$
Long. $93^{\circ} 10'$ - $93^{\circ} 30'$

| | |
|-------|---|
| 636 G | Eppler Lake, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $95^{\circ} 30'$ - $96^{\circ} 00'$ |
| 637 G | Howard Lake, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $95^{\circ} 00'$ - $95^{\circ} 30'$ |
| 638 G | Knife Delta, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $94^{\circ} 30'$ - $95^{\circ} 00'$ |
| 639 G | Churchill, Manitoba |
| | Lat. $58^{\circ} 45'$ - $58^{\circ} 48'$ |
| | Long. $94^{\circ} 00'$ - $94^{\circ} 30'$ |
| 640 G | Button Bay, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $94^{\circ} 00'$ - $94^{\circ} 30'$ |
| 641 G | Nowell Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $94^{\circ} 30'$ - $95^{\circ} 00'$ |
| 642 G | Langille Creek, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $95^{\circ} 00'$ - $95^{\circ} 30'$ |
| 643 G | Duddles Lakes, Manitoba |
| | Lat. $58^{\circ} 30'$ - $59^{\circ} 45'$ |
| | Long. $95^{\circ} 30'$ - $96^{\circ} 00'$ |
| 644 G | White Whale River, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $93^{\circ} 00'$ - $93^{\circ} 30'$ |
| 645 G | Norton Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $93^{\circ} 30'$ - $94^{\circ} 00'$ |
| 646 G | Skromeda Creek, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $95^{\circ} 30'$ - $96^{\circ} 00'$ |
| 647 G | Dickens Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $95^{\circ} 00'$ - $95^{\circ} 30'$ |
| 648 G | Lofthouse Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $94^{\circ} 30'$ - $95^{\circ} 00'$ |
| 649 G | Bylot, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $94^{\circ} 00'$ - $94^{\circ} 30'$ |
| 650 G | Warkworth Creek, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $93^{\circ} 30'$ - $94^{\circ} 00'$ |
| 651 G | Salmon Creek, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $92^{\circ} 55'$ - $93^{\circ} 30'$ |
| 652 G | Paragon Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $97^{\circ} 00'$ - $97^{\circ} 30'$ |

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|-------|---|
| 653 G | Archer Creek, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $96^{\circ} 30'$ - $97^{\circ} 00'$ |
| 654 G | Nares Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $96^{\circ} 00'$ - $96^{\circ} 30'$ |
| 655 G | Stanley River, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $97^{\circ} 30'$ - $98^{\circ} 00'$ |
| 656 G | Dawes Lake, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $97^{\circ} 30'$ - $98^{\circ} 00'$ |
| 657 G | Cromarty, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $94^{\circ} 00'$ - $94^{\circ} 30'$ |
| 658 G | Red Head Rapids, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $94^{\circ} 30'$ - $95^{\circ} 00'$ |
| 659 G | Wise Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $95^{\circ} 00'$ - $95^{\circ} 30'$ |
| 660 G | Knight Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $95^{\circ} 30'$ - $96^{\circ} 00'$ |
| 661 G | Condie Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $96^{\circ} 00'$ - $96^{\circ} 30'$ |
| 662 G | Allan Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $96^{\circ} 30'$ - $97^{\circ} 00'$ |
| 663 G | Broad River, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $92^{\circ} 50'$ - $93^{\circ} 00'$ |
| 664 G | Kelsey Creek, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $93^{\circ} 00'$ - $93^{\circ} 30'$ |
| 665 G | Fletcher Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $93^{\circ} 30'$ - $94^{\circ} 00'$ |
| 666 G | Stony Lake, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $98^{\circ} 30'$ - $99^{\circ} 00'$ |
| 667 G | Overby Lake, Manitoba |
| | Lat. $58^{\circ} 45'$ - $59^{\circ} 00'$ |
| | Long. $98^{\circ} 00'$ - $98^{\circ} 30'$ |
| 668 G | Blyth Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $97^{\circ} 00'$ - $97^{\circ} 30'$ |
| 669 G | Ryan Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $98^{\circ} 30'$ - $99^{\circ} 00'$ |

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|-------|---|
| 670 G | Wilkie Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $99^{\circ} 00'$ - $99^{\circ} 30'$ |
| 671 G | Tadoule Lake, Manitoba |
| | Lat. $58^{\circ} 30'$ - $58^{\circ} 45'$ |
| | Long. $98^{\circ} 00'$ - $98^{\circ} 30'$ |
| 720 G | Legary Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $97^{\circ} 30'$ - $98^{\circ} 00'$ |
| 721 G | Cheyne Lakes, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $99^{\circ} 00'$ - $99^{\circ} 30'$ |
| 722 B | Kinsman Lake, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $98^{\circ} 30'$ - $99^{\circ} 00'$ |
| 723 G | Porcupine Rapids, Manitoba |
| | Lat. $58^{\circ} 15'$ - $58^{\circ} 30'$ |
| | Long. $98^{\circ} 00'$ - $98^{\circ} 30'$ |
| 724 G | Ashley Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $97^{\circ} 30'$ - $98^{\circ} 00'$ |
| 725 G | Fox Lake, Manitoba |
| | Lat. $58^{\circ} 00'$ - $58^{\circ} 15'$ |
| | Long. $98^{\circ} 00'$ - $98^{\circ} 30'$ |

GEOLOGICAL MAPS PUBLISHED BY THE MANITOBA MINES BRANCH

1951-1957

Map 49-5 Lasthope Lake Area: long. $100^{\circ} 45'$ - $101^{\circ} 00'$;
lat. $56^{\circ} 30'$ - $56^{\circ} 45'$; 2 in. to 1 mi.;
by A. P. Fawley.

Map 49-6 Long Lake - Halfway Lake Area: long. $95^{\circ} 16'$ - $95^{\circ} 26'$;
lat. $50^{\circ} 50'$ - $50^{\circ} 57'$; 1 in. to 1320 ft.;
by G. A. Russell.

Map 50-2 Manigotagan - Rice River Area: long. $96^{\circ} 15'$ - $96^{\circ} 30'$;
lat. $51^{\circ} 00'$ - $51^{\circ} 15'$; 2 in. to 1 mi.;
by J. F. Davies.

Map 50-3 Lily Lake - Kickley Lake Area: long. $95^{\circ} 11'$ - $95^{\circ} 15'$;
lat. $50^{\circ} 42'$ - $50^{\circ} 47'$; 1 in. to 1300 ft.;
by G. A. Russell.

Map 50-4 Mystery Lake Area: long. $97^{\circ} 37'$ - $97^{\circ} 50'$;
lat. $55^{\circ} 45'$ - $55^{\circ} 55'$; 2 in. to 1 mi.;
by J. C. Gill.

Map 50-5 Waskaiowaka Lake Area: long. $96^{\circ} 00'$ - $97^{\circ} 00'$;
lat. $56^{\circ} 00'$ - $56^{\circ} 46'$; 1 in. to 2 mi.;
by J. C. Gill.

Map 50-6 Rennie-West Hawk Lake Area: long. $98^{\circ} 14'$ - $95^{\circ} 34'$;
lat. $49^{\circ} 35'$ - $49^{\circ} 53'$; 1 in. to 1 mi.;
by G. D. Springer.

Map 50-7 Laurie Lake Area: long. $101^{\circ} 45'$ - $102^{\circ} 00'$;
lat. $56^{\circ} 30'$ - $56^{\circ} 45'$; 2 in. to 1 mi.;
by G. C. Milligan.

Map 50-8 Beau-Cache Lake Area: long. $100^{\circ} 30'$ - $100^{\circ} 40'$;
lat. $56^{\circ} 21'$ - $56^{\circ} 30'$; 2 in. to 1 mi.;
by G. C. Milligan.

Map 50-9 Counsell Lake and Wilmot Lake Areas: long. $101^{\circ} 00'$ - $101^{\circ} 30'$;
lat. $56^{\circ} 30'$ - $56^{\circ} 45'$; 2 in. to 1 mi.;
by T. A. Oliver.

Map 50-10 Lake St. Martin Area: Twp. 32 and 33. Rge. 7 and 8 WPM.
1 in. to 2 mi.; by H. E. Hunter.

Map 51-3 Oiseau (Bird) River Area: long. $95^{\circ} 30'$ - $95^{\circ} 50'$;
lat. $50^{\circ} 20'$ - $50^{\circ} 30'$; 2 in. to 1 mi.;
by J. F. Davies.

Map 51-4 Utik Lake-Bear Lake Area: long. $96^{\circ} 00'$ - $96^{\circ} 15'$;
lat. $55^{\circ} 03'$ - $55^{\circ} 20'$; 2 in. to 1 mi.;
by G. C. Milligan.

Map 51-5 Melvin Lake Area: long. $100^{\circ} 07' 30''$ - $96^{\circ} 15'$;
lat. $57^{\circ} 00'$ - $57^{\circ} 15'$; 2 in. to 1 mi.;
by H. E. Hunter.

Map 52-1 Southern Rice Lake Area: Twp. 23. Rge. 5, 15 and 14 EPM.
1 in. to 800 ft.; by J. F. Davies.

Map 52-3 Wolverine and Caribou Rivers: long. $94^{\circ} 00'$ - $99^{\circ} 00'$;
lat. $59^{\circ} 00'$ - $60^{\circ} 00'$; 1 in. to 4 mi.;
by G. A. Russell.

Map 53-1 **Eastern Bear Lake Area:** long. $95^{\circ} 45'$ - $96^{\circ} 00'$;
 lat. $55^{\circ} 00'$ - $55^{\circ} 20'$; 2 in. to 1 mi.;
 by G. C. Milligan and W. F. Take.

Map 53-2 **Cotton Lake Area:** long. $96^{\circ} 30'$ - $96^{\circ} 55'$;
 lat. $55^{\circ} 00'$ - $55^{\circ} 12'$; 2 in. to 1 mi.;
 by C. M. Allen.

Map 53-3 **California Lake Area:** long. $95^{\circ} 30'$ - $95^{\circ} 45'$;
 lat. $55^{\circ} 00'$ - $55^{\circ} 20'$; 2 in. to 1 mi.;
 by M. D. Moorhouse and J. H. Shepherd.

Map 53-4 **West Hawk - Falcon Lake Area:** long. $95^{\circ} 09'$ - $95^{\circ} 17'$;
 lat. $45^{\circ} 42'$ - $49^{\circ} 48'$; 1 in. to 1,000 ft.;
 by J. F. Davies.

Map 54-1 **Bird Lake Area:** long. $95^{\circ} 20'$ - $95^{\circ} 30'$; lat. $50^{\circ} 25'$ - $50^{\circ} 30'$;
 1 in. to 1,000 ft.; by J. F. Davies and C. M. Allen.

Map 55-1 **Booster Lake Area:** long. $95^{\circ} 09'$ - $95^{\circ} 20'$;
 lat. $50^{\circ} 25'$ - $50^{\circ} 30'$; 1 in. to 1,000 ft.;
 by J. F. Davies.

Map 55-2 **MacBride Lake Area:** long. $99^{\circ} 45'$ - $100^{\circ} 00'$;
 lat. $56^{\circ} 45'$ - $57^{\circ} 00'$; 2 in. to 1 mi.;
 by L. C. Kilburn.

Map 55-3 **Snow Lake-Herb Lake Area:** long. $99^{\circ} 47'$ - $100^{\circ} 08'$;
 lat. $54^{\circ} 45'$ - $54^{\circ} 58'$; 2 in. to 1 mi.;
 by G. A. Russell.

Map 56-1A **Shatford Lake - Winnipeg River Area:** long. $95^{\circ} 14' 30''$ -
 $95^{\circ} 20' 00''$;
 lat. $50^{\circ} 20'$ - $50^{\circ} 25'$; 1 in. to 1,000 ft.;
 by J. F. Davies.

Map 56-1B **Ryerson Lake - Winnipeg River Area:** long. $95^{\circ} 09' 00''$ -
 $95^{\circ} 14' 30''$;
 lat. $50^{\circ} 20'$ - $50^{\circ} 25'$; 1 in. to 1,000 ft.;
 by J. F. Davies.

PRELIMINARY REPORTS AND MAPS PUBLISHED BY THE
GEOLOGICAL SURVEY OF CANADA

1951-1957

Papers

46 - 14 Flin Flon-Mandy Area, Manitoba and Saskatchewan,
by C. H. Stockwell.
51 - 4 Preliminary map, Sipiwesk, Manitoba,
by J. M. Harrison.
51 - 17 Preliminary map, Cranberry Portage (east half), Manitoba,
by T. Podolsky.
53 - 12 Uhlman Lake Map Area: by G. M. Wright.
54 - 13 Nelson House, Manitoba: by H. A. Quinn.
54 - 14 Heming Lake and Elbow Lake: by J. C. McGlynn.
55 - 8 Knee Lake, Manitoba: by H. A. Quinn.

Maps

10 - 1956 Split Lake, Manitoba: 1 in. to 4 mi.; by R. Mulligan.
24 - 1957 Ledge Lake Area, Manitoba and Saskatchewan;
1 in. to 1,000 ft.; by W. W. Heywood.
26 - 1957 Cranberry Portage (west half), Manitoba;
1 in. to 1 mi.; by T. Podolsky.

GEOLOGICAL MAPS OF MANITOBA PUBLISHED BY THE
GEOLOGICAL SURVEY OF CANADA

1951-1957

900 A Canada - Principal Mineral Area, Geol. Surv., Canada
1 in. to 120 mi.; (1958 - 8th edition).
987 A Crowdduck Bay, west of Principal Meridian; lat. $54^{\circ} 40'$ - $55^{\circ} 00'$;
long. $99^{\circ} 30'$ - $99^{\circ} 45'$; 1 in. to 1 mi.; (1951).
1006 A Batty Lake, west of Principal Meridian; lat. $55^{\circ} 00'$ - $55^{\circ} 15'$;
long. $100^{\circ} 30'$ - $101^{\circ} 00'$; 1 in. to 1 mi.; (1951),
(with Memoir 271).
1016 A Reindeer Lake, Saskatchewan and Manitoba; lat. $56^{\circ} 00'$ - $58^{\circ} 00'$;
long. $100^{\circ} 00'$ - $104^{\circ} 00'$; 1 in. to 8 mi.; (1953).
1020 A Weldon Bay, Manitoba; lat. $54^{\circ} 45'$ - $55^{\circ} 00'$;
long. $101^{\circ} 15'$ - $101^{\circ} 30'$; 1 in. to 1 mi.; (1952).
(with Memoir 270).

APPENDIX

List of Authors - before 1950

(Omitted from Publication 51 - 1)

Allen, C. M. - 1950
Antrobus, E. S. A. - 1949
Ashton, H. F. - 1949
Black, P. T. - 1949
Coldwell, C. K. - 1950
Davies, J. F. - 1950
Dornian, N. - 1950
Eakins, P. R. - 1949
Gentleman, D. - 1945
Harrison, J. M. - 1941
Krouse, C. A. - 1950
Leveille, J. H. - 1950
McAuley, J. S. - 1950
Morgan, J. H. - 1940
Osborne, T. C. - 1949
Shepherd, J. D. - 1934
Stanton, M. S. - 1941
Taylor, W. L. W. - 1950
Troop, A. G. - 1950
Wright, J. F. - 1925

